

## Abstract

Molybdenum carbide ( $\text{MoC}$  and  $\text{Mo}_2\text{C}$ ) produced by heating a precursor material in a first heating zone to a first temperature in the presence of a reducing gas and a carbonizing gas and moving the precursor material to  
5 a second heating zone that is heated to a second temperature that is at least  $100^\circ\text{C}$  hotter than the first heating zone to form said molybdenum carbide.